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Attorney Docket No. 323-100US-D

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JUN 06 2007Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-111 (canceled).

Claim 112 (canceled) A method for detecting seroconversion associated with NANBV Infection at early times after infection comprising:

1. forming an aqueous immunoreaction admixture by admixing a body fluid sample with a NANBV capsid antigen;
2. maintaining said aqueous immunoreaction admixture for a time period sufficient for allowing antibodies against the NANBV capsid antigen present in the body fluid sample to immunoreact with said NANBV capsid antigen to form an immunoreaction product; and
3. detecting the presence of any of said immunoreaction product formed and thereby detecting early seroconversion.

Claim 113 (canceled) The method of claim 112, wherein said detecting in step (c) comprises the steps of:

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- (i) admixing said immunoreaction product formed in step (b) with a labeled specific binding agent to form a labeling admixture, said labeled specific binding agent comprising a specific binding agent and a label;
- (ii) maintaining said labeling admixture for a period sufficient for any of said immunoreaction product present to bind with said labeled product; and
- (iii) detecting the presence of any said labeled product formed, and thereby the presence of said immunoreaction product.

Claim 114 (canceled) The method of claim 113 wherein said specific binding agent is selected from the group consisting of Protein A, anti-human IgG and anti-human IgM.

Claim 115 (canceled) The method of claim 113 or 114, wherein said label is selected from the group consisting of lanthanide chelate, biotin, enzyme and radioactive isotope.

Claim 116 (canceled) The method of any one of claims 112 to 115, wherein said NANBV capsid antigen is affixed to a solid matrix.

Claim 117 (canceled) The method of any one of claims 112 to 115, wherein said NANBV capsid antigen is comprised of a fusion protein.

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Claim 118 (canceled) The method of any one of claims 112 to 115, wherein said NANBV capsid antigen is selected from the group consisting of:

- (a) a NANBV capsid antigen having the amino acid sequence from the residue 1 to 120 of Figure 9;
- (b) a NANBV capsid antigen having the amino acid sequence from the residue 1 to 20 CAP-A of Figure 9;
- (c) a NANBV capsid antigen having the amino acid sequence from the residue 21 to 40 CAP-B of Figure 9;
- (d) a NANBV capsid antigen having the amino acid sequence from the residue 1 to 74 CAP-N of Figure 9;
- (e) a NANBV capsid antigen having the amino acid sequence from the residue 69 to 120 of Figure 9; and
- (f) a NANBV capsid antigen having the amino acid sequence from the residue 2 to 40 of Figure 9.

Claim 119 (canceled) Kit to be used for diagnosing seroconversion associated with NANBV infection at early times after infection in a body fluid sample comprising an NANBV capsid antigen selected from the group consisting:

- (a) a NANBV capsid antigen having the amino acid sequence from the residue 1 to 120 of Figure 9;
- (b) a NANBV capsid antigen having the amino acid sequence from the residue 1 to 20 CAP-A of Figure 9;

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- (c) a NANBV capsid antigen having the amino acid sequence from the residue 21 to 40 CAP-B of Figure 9;
- (d) a NANBV capsid antigen having the amino acid sequence from the residue 1 to 74 CAP-N of Figure 9;
- (e) a NANBV capsid antigen having the amino acid sequence from the residue 69 to 120 of Figure 9; and
- (f) a NANBV capsid antigen having the amino acid sequence from the residue 2 to 40 of Figure 9.

Claim 120 (canceled) The kit of claim 119, further comprising a label or indicating means of signaling the formation of a complex containing an anti-NANBV antibody.

Claim 121 (canceled) The kit of claim 119, wherein said NANBV capsid antigen is affixed to a solid matrix.

Claim 122 (canceled) The kit of claim 119, wherein said specific binding agent is selected from the group consisting of Protein A, anti-human IgG and anti-human IgM.

Claim 123 (canceled) The kit of claim 119, wherein said label is selected from the group consisting of lanthanide chelate, biotin, enzyme and radioactive isotope.

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Claim 124 (new) A method for detecting seroconversion associated with NANBV infection at early times after infection and thereby reducing the number of body fluid samples erroneously characterized as non-reactive in the testing of human body fluid for NANBV hepatitis antibody by employing for each body fluid sample, in a plurality of said samples from different subjects, a method comprising:

- (a) initiating an immunoreaction by contacting each said body fluid sample with a NANBV capsid antigen;
- (b) maintaining said immunoreaction for a time period sufficient for allowing antibodies against the NANBV capsid antigen present in each body fluid sample to immunoreact with said NANBV capsid antigen to form an immunoreaction product; and
- (c) detecting the presence of any of said immunoreaction product formed and early seroconversion, thereby reducing the number of body fluid samples in said plurality of samples erroneously characterized as non-reactive.

Claim 125 (new) The method of claim 124, wherein said detecting in step (c) comprises the steps of:

- (a) admixing said immunoreaction product formed in step (b) with a labeled specific binding agent to form a labeling admixture, said labeled specific binding agent comprising a specific binding agent and a label;
- (b) maintaining said labeling admixture for a period sufficient for any of said immunoreaction product present to bind with said labeled product; and

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- (c) detecting the presence of any said labeled product formed, and thereby the presence of said immunoreaction product.

Claim 126 (new) The method of claim 125 wherein said specific binding agent is selected from the group consisting of Protein A, anti-human IgG and anti-human IgM.

Claim 127 (withdrawn) The method of claim 125, wherein said label is selected from the group consisting of lanthanide chelate, biotin, enzyme and radioactive isotope.

Claim 128 (withdrawn) The method of claim 126, wherein said label is selected from the group consisting of lanthanide chelate, biotin, enzyme and radioactive isotope.

Claim 129 (new) The method of claim 124, wherein said NANBV capsid antigen is affixed to a solid matrix.

Claim 130 (new) The method of claim 124, wherein said NANBV capsid antigen is comprised of a fusion protein.

Claim 131 (new) The method of claim 124, wherein said NANBV capsid antigen is selected from the group consisting of:

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- (a) a NANBV capsid antigen having the amino acid sequence from the residue 1 to 120 of SEQ ID NO: 73;
- (b) a NANBV capsid antigen having the amino acid sequence from the residue 1 to 20 CAP-A of SEQ ID NO: 73;
- (c) a NANBV capsid antigen having the amino acid sequence from the residue 21 to 40 CAP-B of SEQ ID NO: 73;
- (d) a NANBV capsid antigen having the amino acid sequence from the residue 1 to 74 CAP-N of SEQ ID NO: 73;
- (e) a NANBV capsid antigen having the amino acid sequence from the residue 69 to 120 of SEQ ID NO: 73; and
- (f) a NANBV capsid antigen having the amino acid sequence from the residue 2 to 40 of SEQ ID NO: 73.

Claim 132 (withdrawn) Kit to be used for diagnosing seroconversion associated with NANBV infection at early times after infection in a body fluid sample comprising an NANBV capsid antigen selected from the group consisting of:

- (a) a NANBV capsid antigen having the amino acid sequence from the residue 1 to 120 of SEQ ID NO: 73;
- (b) a NANBV capsid antigen having the amino acid sequence from the residue 1 to 20 CAP-A of SEQ ID NO: 73;
- (c) a NANBV capsid antigen having the amino acid sequence from the residue 21 to 40 CAP-B of SEQ ID NO: 73;

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- (d) a NANBV capsid antigen having the amino acid sequence from the residue 1 to 74 CAP-N of SEQ ID NO: 73;
- (e) a NANBV capsid antigen having the amino acid sequence from the residue 69 to 120 of SEQ ID NO: 73; and
- (f) a NANBV capsid antigen having the amino acid sequence from the residue 2 to 40 of SEQ ID NO: 73.

Claim 133 (withdrawn) The kit of claim 132, further comprising a label or indicating means of signaling the formation of a complex containing an anti-NANBV antibody.

Claim 134 (withdrawn) The kit of claim 132, wherein said NANBV capsid antigen is affixed to a solid matrix.

Claim 135 (withdrawn) The kit of claim 132, wherein said specific binding agent is selected from the group consisting of Protein A, anti-human IgG and anti-human IgM.

Claim 136 (withdrawn) The kit of claim 132, wherein said label is selected from the group consisting of lanthanide chelate, biotin, enzyme and radioactive isotope.

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Claim 137 (canceled) The method of claim 124, wherein said NANBV antigen includes the NANBV capsid antigen having the amino acid sequences from residue 1 to 120 of SEQ ID NO: 73.

Claim 138 (canceled) The method of claim 124, wherein said admixture also includes C-100-3 antigen and said immunoreaction products further include immunoreaction products formed from said antibodies and C-100-3 antigen.

Claim 139 (canceled) The method of claim 124, wherein said NANBV antigen is the NANBV capsid antigen having the amino acid sequences from residue 1 to 120 of SEQ ID NO: 73, said admixture also includes C-100-3 antigen and said immunoreaction products further include immunoreaction products formed from said antibodies and C-100-3 antigen.

Claim 140 (new) A method for detecting seroconversion associated with NANBV infection at early times after infection comprising:

- (a) Initiating an immunoreaction admixture by contacting a body fluid sample with NANBV capsid antigen having the amino acid sequence from residue 1 to 120 of SEQ ID NO: 73;

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- (b) maintaining said immunoreaction for a time period sufficient for allowing antibodies against the NANBV capsid antigen present in the body fluid sample to immunoreact with said NANBV capsid antigen to form an immunoreaction product; and
- (c) detecting the presence of any of said immunoreaction product formed and thereby detecting early seroconversion.

Claim 141 (new) A method for detecting seroconversion associated with NANBV infection at early times after infection and thereby reducing the risk of a body fluid sample being erroneously characterized as non-reactive in the testing for NANBV hepatitis antibody by employing for the body fluid sample a method comprising:

- (a) initiating an immunoreaction by contacting said body fluid sample with a NANBV capsid antigen and C-100-3 antigen;
- (b) maintaining said immunoreaction for a time period sufficient for allowing antibodies against the NANBV capsid and C-100-3 antigens present in said body fluid sample to immunoreact with said NANBV capsid and C-100-3 antigens to form immunoreaction products; and
- (c) detecting the presence of any of said immunoreaction products formed and early seroconversion, thereby reducing the risk of said sample being erroneously characterized as non-reactive.

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Claim 142 (new) A method for detecting seroconversion associated with NANBV infection at early times after infection comprising:

- (a) initiating an immunoreaction by contacting a body fluid sample with NANBV capsid antigen having the amino acid sequence from residue 1 to 120 of SEQ ID NO: 73 and C-100-3 antigen;
- (b) maintaining said immunoreaction for a time period sufficient for allowing antibodies against said NANBV capsid and C-100-3 antigens present in the body fluid sample to immunoreact with said NANBV capsid and C-100-3 antigens to form immunoreaction products; and
- (c) detecting the presence of any of said immunoreaction products formed and thereby detecting early seroconversion.

Claim 143 (new) The method of claims 141 or 142 wherein said detecting in step (c) comprises the steps of:

- (a) admixing said immunoreaction products formed in step (b) with a labeled specific binding agent to form a labeling admixture, said labeled specific binding agent comprising a specific binding agent and a label;
- (b) maintaining said labeling admixture for a period sufficient for any of said immunoreaction products present to bind with said labeled product; and
- (c) detecting the presence of any said labeled product formed, and thereby the presence of said immunoreaction products.

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Claim 144 (new) The method of claim 143 wherein said specific binding agent is selected from the group consisting of Protein A, anti-human IgG and anti-human IgM.

Claim 145 (withdrawn) The method of claim 143, wherein said label is selected from the group consisting of lanthanide chelate, biotin, enzyme and radioactive isotope.

Claim 146 (new) The method of claim 143, wherein said antigens are affixed to a solid matrix.

Claim 147 (new) The method of claim 143, wherein said antigens are comprised of a fusion protein.